

MEDONIS, Jr.; VOVERAITIENE, N., red.

Trakai. 3. papildytas leidimas. Vilnius, Mintis, 1965.
58 p. [In Lithuanian] (MIRA 18:10)

MEDONOS, SAVA.

"O sovetske technicke literature. (Praha) Technicko-vedecke vydavatelstvi, 1952.
15 p. (Soviet technical literature)"

SO: East European Accessions List, Vol 3, No 8, Aug 1954.

MEDONCS, S.

"Clearing the Way for New Progressive Methods." p. 243 (Strojirenstvi, Vol. 3,
no. 4, Apr. 1953, Praha)

SO: Monthly List of East European Russian Accessions, Vol. 3, No. 3, Library of Congress, March 1954, Uncl.

Medonos, S.

Medonos, S. The institute of Scientific Information of the Academy of Sciences of the USSR; the Institute of Technical and Economic Information of the Academy of Sciences of the USSR.
p.583.

Vol. 6, no. 4, 1956
SOVETSKA VEDA: STROJIRENSTVI
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

VLADIMIRSKIJ, V.V.; KOMAR, Je.G.; MINC, A.L.; GOL'DIN, L.L.; KOSKAREV, D.C.;
MONOSZON, N.A.; NIKITIN, S.Ja.; RUBCINSKIJ, S.M.; SKACKOV, S.V.;
STREL'COV, N.S.; TRASOV, Je.K.; MEDONOS, S., inz. [translator]

Main characteristics of the planned proton accelerator for 50-60
BeV energy with sharp focusing. Jaderna energie 3 no.2:56-57 F '57.

GRIGOR'JANC, A.N.; MEDONOS, S. [translator]

Some problems of atomic power station operation. Jaderna energije 3
no.5:141-147 My '57.

MEDONOS, S.

French program of nuclear energy development. Jaderna energie 3 no.5:
160 My '57

JERMAKOV, G.V.: [Yermanov, G.V.]; MEDONOS, S. [translator]

Types of atomic power plants built in the Soviet Union within the
6th Five-Year Plan. Jaderna energie 3 no.6:190-192 Je '57.

LEIJPUNSKIJ, A.I. [Leypunskiy, A.I.]; BLOCHINCEV, D.I. [Blokhintsev, D.I.];
ARISTARCHOV, I.N. [Aristarkhov, I.N.]; BONDARENKO, I.I.;
KAZACKOVSKIJ, O.D. [Kazakovskiy, O.D.]; PINCHASIK, M.S.;
STAVISAKIJ, Ju.Ja. [Stavisskiy, Yu.Ya.]; STUMBUR, E.A.;
UKRAJINCEV, F.I. [Ukrainitsev, F.I.]; USACEV, L.N. [Usachev, L.N.];
MEDONOS, S. [translator]

Soviet experimental reactor with fast neutrons BR-2. Jaderna
energie 3 no.8:231-233 Ag '57.

KOGAN, M.M.; MEDONOS, S. (translator)

A turbogenerator for nuclear power stations. Jaderna energie 3 no.8:245-248
Ag '57

MEDONOS, S.

Use of radioisotopes in the United States. Jaderna energie 3 no.8:255
Ag '57

MEDONOS, S.

British nuclear power plants by 1965. Jaderna energie 3 no.9:288
S '57.

MEDONOS, S. [translator]

Design of a Soviet nuclear power plant with 420,000 kW output.
Jaderna energie 3 no.10:292-304 0 '57.

MARGULOVA, T.Ch. [Margulova, T.Kh.]; MEDONOS, S. [transiator]

Education of experts in the peaceful use of nuclear
energy. Jaderna energie 4 no.8:210-215 Ag '58.

JEMELJANOV, V.S. [Yemelyanov, V.S.]; MEDONOS, S. [translator]

Future of nuclear engineering in the Soviet Union. Jaderna energie 4 no.11:318-321 N '58.

1. Vedouci Hlavní spravy pro využití jaderné energie při Rade ministru SSSR (for Jemeljanov).

MEDONCS, S.

"Books on Soviet nuclear reactors; a supplement to the survey of them."

JADENNA ENERGIE. Praha, Czechoslovakia. Vol. 5, no. 3, Mar. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

MEDONOS, S.

Economic effectiveness of methods of control by radioisotopes. Jadarna
energie 6 no.3:107 Mr '60.

MEDONOS, S.

Science helping electric power production tasks in the third
five-year plan. Jaderna energie 6 no.4:129-130 Ap '60.

MEDONOS, Sava, inz.

Power engineering of the Soviet Union is on the borderline between socialism and communism. Energetika Cz 11 no.5;211-213,215 My '61.

MEDONOS, S.

Outlook for heavy water piles. Jaderna energie 9 no.1:27-28
Ja '63.

MEDONOS, S.

Contribution of nuclear engineering for covering the deficit in electric
power requirements in Czechoslovakia. Jaderna energie 9 no.2:71-72
F '63.

MEDONOS, S.

Economically effective nuclear power plants in the United States.
Jaderna energie 9 no. 8:270-271 '63.

L 11296-63

EPF(n)-2/EWT(m)/T-2/BDS--AFTTC/ASD/SSD--Pu-l--DM

ACCESSION NR: AP3003990

S/0089/63/615/001/0086/0087

62

AUTHOR: Medonos, S.

TIME: Conference on problems of the development of nuclear power in Czechoslovakia [Prague, October 1962]

SOURCE: Atomnaya energiya, v. 15, no. 1, 1963, 86-87

TOPIC TAGS: nuclear reactor KS-150, nuclear power plant

ABSTRACT: The Vtoraya natsional'naya konferentsiya po tekhnicheskim i ekonomicheskim voprosam razvitiya yadernoy energetiki v Chexoslovakii (2nd National Conference on Economic and Technological Problems Concerning the Development of Nuclear Power in Czechoslovakia) was held in Prague in October 1962. The conference was devoted to the presentation and discussion of the results of scientific research and engineering investigations on the development of the design and manufacture of equipment for the first Czechoslovak atomic electric station. One paper presented was entitled "Technological Problems in the Development of the First Czechoslovak Nuclear Power Plant and Scientific Research on the Physics and Technology of the KS-150 Reactor," by I. Gauer. This heavy-water gas-cooled reactor fueled with

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ACCESSION NR: AP3003990

natural uranium was developed on the basis of Soviet design. It is 5 m in diameter, 20 m high, and has a wall thickness of 150-350 mm — the largest high-pressure reactor ever constructed for a power plant. A paper presented by C. Sklenicka dealt with the construction of additional steam generators, gas compressors, turbogenerators and other equipment for the A-1 reactor. The program for the immediate future outlined at the conference concerns the completion of the A-1 reactor and the construction of the A-2 reactor in 1964-1970.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 08Aug63

ENCL: 00

SUB CODE: NS

NO REF SOV: 001

OTHER: 000

Card

2/2

MEDONOS, Sava, inz.

Nuclear physics yesterday and today, and its use for the development of power engineering in Czechoslovakia. Tech praca 15 no.2:147-151 F '63.

1. Ustav jaderného výzkumu, Československá akademie věd, Řez; vědecký tajemník Komise pro jadernou techniku, Ústřední rada Československé vědecko-technické společnosti.

MEDONOS, Sava

Conference on building the first Czechoslovak nuclear power
plant. Tech praca 15 no.8:634 Ag '63.

MEDONOS, S.

New information on the Soviet nuclear power program.
Jaderna energie 10 no. 2:62-63 F '64.

MEDONOS, S.

Increased interest of the United States in heavy water power reactors. Jaderna energie 10 no. 5:182-183 My '64.

MEDONOS, S.

What we learned in Geneva. Jadern. energie 10 no.10:
355-356 0 '64.

Boiling water reactors are in the front of economic competition
of nuclear power plants in the United States. Ibid.:385-387

MEDONOS, V.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application. Industrial Organic Synthesis I-14

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 13068

Author : Medonos V., Kadlec M.

Title : Hydration of Acetylene in the Liquid Phase

Orig Pub : Chem. prumysl, 1956, 6, No 3, 92-95

Abstract : Using a laboratory unit with a reactor of 1.5 liter capacity, designed for an output of 70 g CH_3CHO per hour, a study was made of the process of conversion of C_2H_2 to CH_3CHO in the presence of a catalyst containing 1% of HgO . It is shown that optimal conditions of the process are: H_2SO_4 concentration 20-25%, temperature $> 70^\circ$ and rate of flow of C_2H_2 , depending on the parameters of the apparatus, of 60-85 liters per hours, per 1 liter of liquid catalyst; maximum degree of conversion within 1 hour reached 64-66%. A diagram of the unit is included.

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- 272 -

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and Their Application, Part 3. - H
Industrial Organic Synthesis.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61822.

Author : V. Medonos.

Inst : Not given.

Title : Application of Statistical Methods to Treatment of Experimental Data.

Orig Pub: Chem prumysl, 1956, 6, No 6, 236 - 239.

Abstract: A statistical method was applied to the treatment of experimental data obtained by the study of the conversion of C_2H_2 into CH_3CHO in the liquid phase (RZhKhim, 1957, 13068). That method made it possible to determine the optimum conditions for carrying out that process and the effect of various parameters (temperature, acid concentration).

Card 1/1

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Applications. Industrial Organic Synthesis. H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20385

Author : Ruzicka, Vlastimil; Medonos, Vladimir
Inst : -
Title : Use of "Catexes"-Cationites of Czechoslovak Production as Catalysts for Esterification of Citric Acid and Phtalic Anhydride with n-Butyl Alcohol.

Orig Pub : Chem. Prumysl, 1956, No 7, 260-271

Abstract : No abstract.

Card : 1/1

14 57

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Application. Industrial Organic Synthesis.

H-15

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 26043

Author : Medonos Vladimir, Pasek Josef, Ruzicka Vlastimil

Inst : -

Title : Preparation of Methyl Phthalates by Direct Addition of
Dimethyl Ether to Phthalic Acid Anhydride.

Orig Pub : Chem. prumysl, 1957, 7, No 6, 281-285.

Abstract : Study of the reaction of addition of $(CH_3)_2O$ (I) (a by-product in the production of CH_3OH from water gas) to phthalic acid anhydride (II). At normal pressure, in concentrated H_2SO_4 , maximum conversion of II, attained at $120-135^\circ$ and molar ratio of II to $H_2SO_4 = 0.8$; 1, is of 85%, of which 45% are converted to monomethyl- (III) and 40% to dimethyl phthalate (IV). On elevation of temperature and lowering of concentration of II the yield of IV exceeds 50%.

Card 1/2

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and H-15
Their Application. Industrial Organic Synthesis.

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 26043

Reaction under pressure was carried out in autoclave in the presence of small amounts of concentrated H_2SO_4 as catalyst. At 160° with a 5-fold molar excess of I the overall conversion of II reaches 94.9% (91.4% to IV and 3.5% to III). The products were analyzed potentiometrically (RZhKhim, 1954, 11298) in dimethyl formamide.

Card 2/2

- 34 -

MEDONOS, V.

"J. Gut's Co zkouma a vyrabi chemie (Chemistry and Chemical Industry);
a book review."

p. 1504 (Chemicke Listy, Vol. 51, no. 8, Aug. 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 6 June 1958

S/081/62/000/003/018/090
B151/B144

AUTHORS: Růžička, Vlastimil, Matusů, Zdeněk, Medonos, Vladimír

TITLE: Kinetics of oxidation of cyclohexanone and cyclohexanolone-1,2 by oxygen in acetic acid, in the presence of manganese acetate. Polarographic determination of cyclohexanolone-1,2

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 72, abstract 3B478 (Sb. Vysoké školy chem. technol. Praze Odd. Fak. anorgan.a organ. technol. v. 2, 1958, 633-644)

TEXT: The oxidation of cyclohexanone (I) in acetic acid in the presence of manganese acetate follows the first order with the concentration of I, and the 0.1 order with catalyst concentration. The oxidation in solution starts at 40°C and then, as in the absence of a solvent, the reaction becomes possible only at > 100°C. The value obtained for the activation energy (E) is near the value for E for other organic compounds (~ 20 kcal/mole). The rate of oxidation of cyclohexanolone-1,2 (II) is ten times lower than that of I under the same conditions. This is

Card 1/2

Kinetics of oxidation of...

S/081/62/000/003/018/090
B151/B144

evidence that II is not an intermediate product of the oxidation of I. The polarographic behavior of II is studied. Using a medium of $2 \text{ N NH}_4\text{OH} + 1 \text{ M (NH}_4)_2\text{SO}_4$ three polarographic waves are obtained, one of which has a diffusional character. This wave is used for the analysis of II. [Abstracter's note: Complete translation.]

Card 2/2

MEDONOS, VLADIMIR

Distr: 4E2c(1)/4E3d 7

* Hydration of diluted acetylene in the liquid phase. Vladimir Medonos and Jaroslav Brezina (Vysoká škola chem. techn., Prague). Chem. průmysl 8, 344-6 (1958); cf. C.A. 51, 1829. The liquid phase hydration of C_2H_2 to AcH was studied using C_2H_2 -H mixts. of low C_2H_2 content. H_2O (1%) in dil. H_2SO_4 was used as a catalyst. The following reaction parameters were varied: concn. of H_2SO_4 (5-20% of catalyst soln./hr.), C_2H_2 content (5-20% of gas volume), vol. of catalyst soln. (500-900 ml.). The temp. for most runs was 90° with a few performed at 80°. Statistical evaluation of the results gave the following optimum conditions, verified by expt.: concn. of H_2SO_4 10%; vol. of catalyst soln. 700 ml.; flow rate 80 l./hr.; C_2H_2 content 13%; temp. 90°. The conversion yield under these conditions was 74%. This compared favorably with an optimum yield of 68% for pure C_2H_2 . These findings indicate the possibility of direct conversion of low grade C_2H_2 resulting from the pyrolysis of hydrocarbons. Max Hellmuth

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Medonos, V.

CZEC OSLOVAKIA/Analytical Chemistry. Analysis of Organic Substances.

E

Obs Jour: Ref Zhur-Khim., No 9, 1959, 31093.

Author: Medonos, V.

Title:

Title: Polarographic Determination of Acetylene, Vinyl Chloride, 1,2-Dichloroethylene and of 1,1,3-Trichloroethylene and their mixtures.

Orig Pub: Collect czec osl. chem., 1958, 23, 1465-1470.

Abstract: No abstract. See Ref Zhur-Khimiya, 1959, 6033.

Card : 1/1

108

MEDONOS, V.

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of E-3
Organic Substances.

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8033.

Author : Medonos, Vladimir.

Inst : Not given.

Title : Polarographic Determination of Acetylene, Vinyl
Chloride, 1,2-Dichloroethylene and 1,1,2-Trichloroethylene and Their Mixtures.

Orig Pub: Chem. listy, 1958, 52, No 1, 31-35.

Abstract: For the determination of acetylene (I), vinyl chloride (II), 1,2-dichloroethylene (III), and 1,1,2-trichloroethylene (IV) in mixtures, they are brominated and the resulting saturated bromine-derivatives, which yield simple polarographic waves, are subjected to polarography. The mixture of the starting substances is absorbed in

Card 1/3

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of E-3
Organic Substances.

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8033.

Abstract: 75 ml of glacial CH_3COOH (V) until a concentration of 0.05 M is attained, and then brought up to 100 ml with a solution of Br_2 in V (1 : 1). On completion of bromination (after 24 hours at room temperature or a slightly higher temperature) excess Br_2 is removed by blowing with CO_2 or N_2 at 55-60°, and the solution is subjected to polarography after dilution with a solution of the background (3 M solution of Na-acetate in 80% V) in the proportion 1 : 10. All the enumerated substances can be determined separately or in mixtures, with the exception of the mixture of I and III. To determine III in the presence of II, the bromoderivatives of which yield coinciding

Card 2/3

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Organic Substances.

E-3

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8033.

Abstract: curves, use is made of the faster rate of bromination of II, which is brominated selectively with a 1 N solution of Br_2 and then subjected to polarography. Values of $E_{1/2}$ (in v) are given for the bromoderivatives: I 0.30, II 0.85, III 0.55, IV - 0.05. On increase of concentration of V the $E_{1/2}$ values of all the listed bromoderivatives are shifted to an equal extent toward more negative values. On increase of Na-acetate concentration, steeper waves are obtained, $E_{1/2}$ values are shifted toward more positive values, and height of waves is equally decreased for all derivatives. -- J. Vanecek.

Card 3/3

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5.3610

Z/009/60/010/05/004/040
E112/E153

AUTHORS: Vladimír Medonos and Marcela Vávrová

TITLE: Polarographic Determination of Thiourea

PERIODICAL: Chemický Průmysl, Vol 10, 1960, Nr 5, pp 234-237

ABSTRACT: Thiourea is produced by passing carbon dioxide into a suspension of calcium cyanamide in a solution of ammonium sulphide. The authors present a quick polarographic method for its estimation in the rather complex reaction mixture. The conventional method of titration with silver nitrate is too cumbersome and the polarographic method offers advantages. The position of halfwave potentials, changes with the concentration of thiourea. A wave with best characteristics is obtained in a medium of 0.2 N-NaOH, the halfwave potential of which is about 0.3 V. An alkaline medium is, however, not suitable for the direct estimation of thiourea because colloidal sulphur is precipitated from the present hydrogen sulphide. Furthermore, maxima are formed which cannot be avoided, even by the addition of gelatine. The authors have developed a polarographic method using as reaction medium a 1N sulphuric acid plus 3 gms. of cadmium acetate per one litre, the latter compound effecting a complete

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Z/009/60/010/05/004/040
E112/E153

Polarographic Determination of Thiourea

elimination of sulphide ions. Cyanamides, dicyandiamide, or urea, have no deleterious effect on the estimation of thiourea. The authors give experimental details of the method. A current of a voltage between 0.2 and 0.5 V corresponding to the horizontal part of the polarographic wave of thiourea of concentration 2×10^{-3} to 6×10^{-3} N. is passed between the dropping mercury and calomel electrode. The amplitude of the ammeter is directly proportional to the concentration of thiourea and can be read from the calibration diagram. Results of analyses were evaluated by variant analyses of factorial experiments. Results are tabulated, giving mean squares, degree of freedom, variants and statistical significance. The most important factor affecting results was the concentration of thiourea in the analyzed sample. There are 4 figures, 2 tables and 13 references, of which 8 are Czech, 2 German, 1 Italian, 1 Soviet and 1 English.

Card
2/2ASSOCIATION: Vysoká škola chemicko-technologická, Praha
(University of Chemical Technology, Prague)

SUBMITTED: February 15, 1960

MEDONOS, V.

"Unit operations in chemistry" by M. Loncin. Reviewed by
V. Medonos. Chem listy 57 no.3:278 Mr '63.

MEDONOS, Vladimir

"Chemical kinetics and catalysis" by G.M.Pancenkov, B.P.L. belev.
Reviewed by Vladimir Medonos. Chem prum 15 no.4:255-256 Ap '65.

1. Higher School of Chemical Technology, Prague.

EXCERPTA MEDICA Sec.11 Vol.10/10 Oto-Rhino-Laryngo Oct57
MEDONSKY I.

1853. MEDONSKY I. Krakov. *Acute and chronic oesophageal stenosis caused by caustic chemical substances (Russian text)
VESTN:OTO-RINO-LARING. 1957, 2 (3-8)

In poisoning by caustic potash four periods are distinguished: (1) necrosis; (2) ulceration and granulation; (3) cicatrization; (4) stenosis. The gravity of the lesion depends on anatomical conditions (physiological strictures) and on reflexes arising while swallowing the caustic substance. Stomach lavage is advisable if conducted immediately or soon after poisoning. Early bouginage offers better results than late, after stenosis has developed. An oesophageal lumen of 7 mm. is sufficient for normal nutrition. Gastrostomy is indicated in cases of total oesophageal obstruction and oesophageal or stomach perforation.

L 09001-67 EWT(d)/EWP(c)/EWP(v)/EWP(k)/EWP(l) IJP(c)

ACC NR: AP6012157

SOURCE CODE: UR/0413/66/000/007/0073/0073

AUTHORS: Shalikhov, G. S.; Kondrashova, G. P.; Volkov, Ye. S.; Medov, B. P.; Sidnev, N. F.; Luts'ko, S. P.; Snopov, G. A.

ORG: none

TITLE: Magnetic flaw detector. ¹⁴ Class 42, No. 180391

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 73

TOPIC TAGS: flaw detection, magnetic amplifier, magnetic method

ABSTRACT: This Author Certificate presents a magnetic flaw detector containing a power transformer, electromagnets, a capacitor, and rectifiers through which pulsed discharge of the capacitor is produced, and an automatic circuit controlling the rectifier triggering. Longitudinal magnetization in the automatic circuit is produced by electromagnets, and circular magnetization--by the gating of the pulsed current. To check parts of any size or form with subsequent total demagnetization, the controlled rectifiers are in the form of opposing controlled semiconductor diodes and are connected in the transformer primary and secondary circuits. The control electrodes of the primary diodes are connected to the

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UDC: 620.179.141.1/.2-

L 09001-67

ACC NR: AP6012157

capacitor discharge circuit. The control electrodes of the secondary diodes are connected to the automatic circuit. To establish the required strength of the magnetization current and the reversing frequency of the demagnetization current, the automatic circuit contains magnetic amplifiers whose outputs are connected to the control electrodes of the transformer secondary, and the input windings—with a potentiometer.

SUB CODE: ^{13, 14,}
~~24, 26,~~ 09/ SUBM DATE: 31Dec64

Card 2/2 nst

BEREZIN, A., kand.med.nauk; MEDOVAR, A.; KAPEL'NIK, A.

"Business" in medicine. Okhr. truda i sots. strakh. 5 no.9:
46-47 3 '62. (MIRA 16:5)

1. Rukovoditel' sektora zarubezhnogo zdravookhraneniya Ukrainskogo
nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny (for
Beresin). 2. Sotrudniki sektora zarubezhnogo zdravookhraneniya
Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy
gigiyeny (for Medovar, Kapel'nik).

(UNITED STATES--MEDICAL CARE)

KANTOR, L.Ya.; GUMEL'YA, A.N.; ROZENBERG, Ya.G.; AFANAS'YEV, A.P.;
SAMORUKOV, D.A.; GUSEV, S.S.; DOGADIN, V.N.; RAMENSKIY,
B.N.; KARASIK, N.S.; PIONTKOVSKIY, B.A.; Primal uchastiye
MEDOVAR, A.I.; SVERDLOVA, I.S., red.; ULANOVSKAYA, N.M.,
red.; KUROCH, K.G., tekhn. red.

[Electrical communications and wire broadcasting] Elektricheskaya svyaz' i radiofizika. [By] L.IA.Kantor i dr.
Izd.2., dop. i ispr. Moskva, Svyaz'izdat, 1963. 672 p.
(MIRA 16:8)

(Wire broadcasting) (Telecommunication)

BOVKUN, Viktor Georgiyevich; KAZARINOV, Ivan Alekseyevich; KOKOSHKIN, Pavel Aleksandrovich; LYUBSKIY, Gennadiy Severianovich; MEDOVAR, Anatoliy Isayevich; PETROV, Viktor Vasil'yevich; PIONTKOVSKIY, Bronislav Aleksandrovich; SERYAKOV, Nikolay Ivanovich; ELINSON, Mikhail Mikhaylovich; SERGEYCHUK, K.Ya., red.; GRIGOR'YEV, B.S., red.; FORTUSHENKO, A.D., red.; BUSANKINA, N.G., red.; SHEFER, G.I., tekhn. red.

[Engineering manual on electric communications; electric equipment] Inzhenerno-tekhnicheskii spravochnik po elektrosviazi; elektroustanovki. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1962. 671 p. (MIRA 15:6)

(Telecommunication--Handbooks, manuals, etc.)

(Electric engineering--Handbooks, manuals, etc.)

L 44454-66 EWT(d)/EW(m)/EWP(c)/EWP(v)/EWP(t)/ETI/EWP(k) IJP(c) JD
 ACC NR: AP6018260 (N) SOURCE CODE: UR/0133/66/000/002/0135/0139

AUTHORS: Medovar, B. I.; Bondarenko, O. P.; Klyuyev, M. M.; Antuan, L.; Zhallas, P.; Bushe, P.; Giber, Zh.; Valle, P. 39

ORG: [Medovar, Klyuyev, Bondarenko] Institute for Electrowelding im. Ye. O. Paton B
 AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE: Experimental results obtained on the first electrosag furnace built in France according to a Soviet license

SOURCE: Stal'. no. 2, 1966, 135-139

TOPIC TAGS: steel alloy, steel industry, steel microstructure, steel impurity, austenitic steel

ABSTRACT: The performance of the first Soviet-built electrosag steel furnace in France is described. The performance of the furnace was tested on a number of alloy and austenitic steels. The chemical composition, the usual mechanical properties, microstructure, and the distribution of nonmetallic impurities in the steel ingots were determined. The experimental results are presented in graphs and tables (see Fig. 1). It is concluded from the experimental results that the furnace performance was highly satisfactory and that the electrosag method of steel smelting seems to be very promising indeed.

Card 1/2

UDC: 669.187.26

L 44454-66

ACC NR: AP6018260

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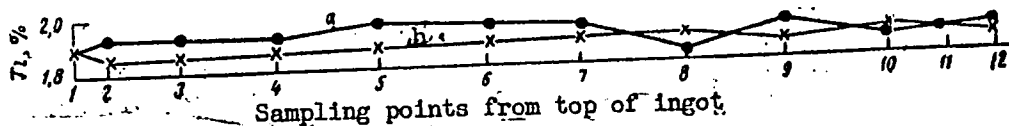


Fig. 1. Distribution of titanium in the ingot of steel G after electroslag smelting (refining) (EShP). a - specimens at 5 mm from edge; b - at 40 mm; height of ingot 1000 mm, cross section at bottom 200 x 200, at 160 x 160 mm; 1 - about 50 mm from top; 12 - about 50 mm from bottom.

Orig. art. has: 3 tables and 7 graphs.

SUB CODE: 111/ SUBM DATE: none

Card 2/2 20

MEDOVAR, B. I.

277LO. LYUBOV, B. Ya.---vychisleniye skorosti rosta zarodysha ferrita pri izotermicheskom raspade austenita. v sb: problemy metallovedeniya i fiziki metallov. M., 1929 S. 316-21.

MEDOVAR, B. I. i ASNIS, A. Ye. --vliyaniye primesi medi na sklonnost' svarnykh shovov k stareniy. Sm 27760.

SO: Letopis' Zhurnal'nykh Statey, Vol 37 1949.

MEDOVAR, E. I. and OSTROVSKAIA, S. A.

Novoe v avtomaticheskoi skorostnoi svarke pod sloem fliusa. Kiev, AN UkrSSR,
1946 23 p.

Innovations in automatic high-speed welding under a layer of flux.

DLC: TK4669.08

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress.

*Influences of Granulometric Composition of Fluxes on the Parameters of the Seam During High-Speed Welding. D. M. Rabkin and B. I. Medovskiy, 5 pages. Battelle translation from *Aviugennue Delo*, no. 1, 1946, p. 11-12.*

The above subject was investigated. Results are tabulated and described. Contrary to results reported by I. M. Keir in the United States, the authors found that large flux grains caused increased width of the fillet and decreased the depth. Results also indicate increase in arc voltage, an increase in amount of flux fused per unit of time, and increased length of arc, with increase in flux grain size. (Photostat of original is bound with translation.)

10

ca

PROCESSIES AND PROPERTIES INDEX

The stabilizing properties of welding fluxes. D. M. Rabkin and B. I. Medovar. *Argonnoe Delo* 1946, No. 6 5/10, 9-10. Nine fluxes were tested for their ability to stabilize the welding arc. This was detd. by the length of the arc when it broke, i.e., the distance between the base metal and the tip of the electrode when the arc breaks. Generally, the CaO in the flux promotes a long arc while CaF₂ shortens it. M. Hosh

COMMON ELEMENTS

OPEN

ASB.SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION SYMBOLOGY

SECTION H10 CHV GEE

RELATIONS

SECTION SYMBOLOGY

SECTION H10 CHV GEE

RELATIONS

B

Speeding Up the Submerged Arc Welding Process. B. I. Medvedev, D. M. Rabkin, and B. E. Paton. *Welding*, v. 14, Sept. 1945, p. 471. Abstract from *Avtoyarn*, Dets. no. 7, 1945.

Details of course of experiments which resulted in substantial increase in speed

ASME-SEA METALLURGICAL LITERATURE CLASSIFICATION

MEDOVAR, B. I.

Avtomaticheskaya svarka pod fliusom naklonnym elektrodom. Kiev, AN UkrSSr, 1947. 81, (2) p. illus.

At head of title: Akademiia nauk Ukrainskoi SSR. Institut elektrosvarki.

Bibliography: p. 81-(82)

Automatic flux welding method with an inclined electrode.

DLC: TK4660.M36

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

7

B

Periodicity of the Process of Preliminary Crystallization in the Weld Crater During Welding Under Flux.
 (In Russian.) B. I. Medovar and A. M. Makara.
Arsipennur Delo (Welding), Oct. 1947, p. 15.

The primary crystallization process is shown to have a periodic character. This causes formation of a laminated structure in the weld metal, which is shown by means of photomicrographs. The following facts were determined: thickness of the layers for a given seam is constant; periodicity of crystallization promotes agitation of the molten metal in the weld crater; and the differences of chemical composition in the weld metal are very small.

ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION

STANDARD OF

STANDARD REF ONLY ONE

COLLECTION

STANDARD ONE ONLY ONE

B

7

Applicability of Automatic Structural Welding of Low-Carbon Steels at Low Temperatures. (In Russian.) H. I. Medovoy and A. E. Asnis. *Avtogennoe Delo* (Welding), Dec. 1947, p. 15-17.

Testing of a specimen welded under normal conditions and one welded at -20°C. showed 15 20% lower impact strength of the latter. However, cold brittleness was not increased. 11 ref.

ELECTRONIC REPRODUCTION OF DOCUMENTS FROM THE U.S.S.R.

1ST AND 2ND ORDER										PROCESSES AND PROPERTIES INDEX																																																	
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X-Ray Investigation of the Welding-Arc Zone, While Operating Under Flux. (In Russian.) N. G. Ostapenko and B. I. Medovar. <i>Arzhennoe Delo</i> (Welding), Nov. 1947, p. 16-20. Describes and diagrams an apparatus for above investigation and presents typical results by means of text and radiographs. This method permits determination of the ratio between the part of the arc submerged in the base metal and the part outside and adjacent to the electrode. This ratio is believed to be related to factors affecting the quality of the welds.																																																											
ASB-11A METALLURGICAL LITERATURE CLASSIFICATION										FROM ROWING																																																	
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Automatic Arc Welding of Structures of Low Carbon Steel at Subnormal Temperatures. B. I. Medovar and A. E. Asnis, Henry Bratcher (Altadena, Calif.). Translation No. 2162, 1948, 14 pages. From *Arkhivno Delo (Welding)*, v. 18, no. 12, 1947, p. 15-17.

Previously abstracted from original source under title: "Applicability of Automatic Structural Welding of Low-Carbon Steels at Low Temperatures."

NEDOVAR, B. I.

Nedovar, B. I. "Ways of raising the productivity of automatic welding",
Trudy Vsesoyuz. konf-tsii po avtomat. svarke pod flyusom, 3-6 October 1947,
Kiev, 1948, p. 84-89.

SC: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Staley, No. 11, 1949).

MEDOVAR, B. I.

Medovar, B. I. "On the possible use of automatic welding below freezing",
Trudy Vsesoyuz. konf-tsi po avtomat. svarke pod flyusom, 3-6 October 1947,
Kiev, 1948, p. 109-15.

SC: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 11, 1948).

MELOVAR, B. I.

A snis, A. Ye. and Melovar, B. I. "Automatic flux welding of stainless-
nickel steel", Trudy po avtomat. svarke pod flyson (Tr-t elektrosvarni b. ratna),
Collection 2, 1948, p. 24-46, - Bibliog: 9 items.

So: U-261, 10 April 51, (Letovis 'Zhurnal 'nykh Statey, No. 12, 1949).

MEDOVAR, B. I.

Medovar, B. I., Makara, A. M. and Asnis, A. Ye. "The improved quality of automatic heavy-guage seams with small additions of titanium and aluminum", Trudy po avtomat. svarke pod flyusom (In-t elektrosvarki im. Patona), Collection 3, 1943, p. 60-69, - Bibliog: 6 items.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Sta ey, No. 11, 1949).

MEDOVAR B.I. : ASNIS, A.Yu.

Automatic welding under flux of stainless chromium-Ni steel.
Dop.AN URSR no.3:60-67 '48. (MLRA 9:9)

1.Institut elektrozvayuvannya imeni E.O.Patona Akademii nauk
Ukrains'koi RSR. Predstavleno diysnim chlenom AN URSR E.O.Patonom.
(Steel, Stainless--Welding)

MEDOVAR, B.I.; MAKARA, A.M.; ASNIS, A.Yu.

Effect of small titanium and aluminum additions on the structure and properties of seams in automatic welding. Dop.AN URSR no.4:41-49 '48.

(MIRA 9:9)

1. Institut elektrosvarivannya imeni Ye.O.Patona Akademii nauk Ukrain's'koi RSR. Predstavleno diysnim chlenom AN URSR Ye.O.Patonom.
(Welding)

MEDOVAR, B. I.

Medovar, B. I., Rabkin, D. M. and Podgayetskiy, V. V. - "On the extent of the effect of flux oxidation on the restoration of silicium and manganese during automatic welding of low carbon steel," *Kodlady Akad. nauk Ukr. SSR*, No. 6, 1948, p. 21-24, (In Ukrainian, resume in Russian)

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

MEDOVAR, B. I.

Medovar, B. I. and Asnis, A. Ye. - "On determining the grain structure of cast steel at seams of automatic weld," Doklady Akad. nauk Ukr. SSR, No. 6, 1948, p. 25-29, (In Ukrainian, resume in Russian), Bibliog: 5 items

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

14

On the Nature of the Primary Crystallization of the Weld Metal Pool. A. M. Makarov and B. I. Medvedev. (Arhivirovnoe Doin, 1948, No. 12, pp. 25-27). (In Russian). Some results of previous experiments on the crystallization of the fused metal in a weld, which showed that wave formation in the liquid could not explain the crystallization taking place in well-defined layers, are re-examined. Further experiments with a submerged arc, in which this form of crystallization was obtained, although wave formation was excluded, are described. Photomicrographs of the crystalline structure are given, and it is shown that aluminium greatly increases the stratification. Tamman's theory of crystallization is shown to be inapplicable to the conditions existing in the fused metal during welding, the crystallization being governed by the constancy of the product of the thickness of the crystalline layer and the speed of crystallization in the direction of the temperature gradient.—A. K.

14

SM.SLA METALLURGICAL LITERATURE CLASSIFICATION

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COMMON ELEMENTS		1ST AND 2ND SERIES		PAGE(S) AND PROPERTY INDEX		
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<i>a</i> 286-K. Certain Metallurgical Features of Automatic Welding at High Speeds. (In Russian.) B. I. Medvedev. <i>Avtomatizirov Delo (Welding)</i>, Nov. 1949, p. 3-7. Interaction of metal and slag during automatic welding under flux at a rate of 120-150 meters per hr. was investigated for low-carbon steel (0.1% C, 0.02% S, 0.01% P, 0.005% N), 12 mm. thick) with a 200-kv. arc. Influence of arc length, and of proportion of electrode metal in the weld on chemical composition of weld metal was determined. Optimum welding conditions for different situations. 13 ref. (K1, CN)						
MATERIALS INDEX ASM-A METALLURGICAL LITERATURE CLASSIFICATION FROM DIVISION OF RESEARCH AND DEVELOPMENT RESEARCH GROUP ONE GROUP ONE GROUP TWO GROUP THREE GROUP FOUR GROUP FIVE GROUP SIX GROUP SEVEN GROUP EIGHT GROUP NINE GROUP TEN GROUP ELEVEN GROUP TWELVE GROUP THIRTEEN GROUP FOURTEEN GROUP FIFTEEN GROUP SIXTEEN GROUP SEVENTEEN GROUP EIGHTEEN GROUP NINETEEN GROUP TWENTY GROUP TWENTYONE GROUP TWENTYTWO GROUP TWENTYTHREE GROUP TWENTYFOUR GROUP TWENTYFIVE GROUP TWENTYSIX GROUP TWENTYSEVEN GROUP TWENTYEIGHT GROUP TWENTYNINE GROUP THIRTY GROUP THIRTYONE GROUP THIRTYTWO GROUP THIRTYTHREE GROUP THIRTYFOUR GROUP THIRTYFIVE GROUP THIRTYSIX GROUP THIRTYSEVEN GROUP THIRTYEIGHT GROUP THIRTYNINE GROUP FORTY GROUP FORTYONE GROUP FORTYTWO GROUP FORTYTHREE GROUP FORTYFOUR GROUP FORTYFIVE GROUP FORTYSIX GROUP FORTYSEVEN GROUP FORTYEIGHT GROUP FORTYNINE GROUP FIFTY GROUP FIFTYONE GROUP FIFTYTWO GROUP FIFTYTHREE GROUP FIFTYFOUR GROUP FIFTYFIVE GROUP FIFTYSIX GROUP FIFTYSEVEN GROUP FIFTYEIGHT GROUP FIFTYNINE GROUP SIXTY GROUP SIXTYONE GROUP SIXTYTWO GROUP SIXTYTHREE GROUP SIXTYFOUR GROUP SIXTYFIVE GROUP SIXTYSIX GROUP SIXTYSEVEN GROUP SIXTYEIGHT GROUP SIXTYNINE GROUP SEVENTY GROUP SEVENTYONE GROUP SEVENTYTWO GROUP SEVENTYTHREE GROUP SEVENTYFOUR GROUP SEVENTYFIVE GROUP SEVENTYSIX GROUP SEVENTYSEVEN GROUP SEVENTYEIGHT GROUP SEVENTYNINE GROUP EIGHTY GROUP EIGHTYONE GROUP EIGHTYTWO GROUP EIGHTYTHREE GROUP EIGHTYFOUR GROUP EIGHTYFIVE GROUP EIGHTYSIX GROUP EIGHTYSEVEN GROUP EIGHTYEIGHT GROUP EIGHTYNINE GROUP NINETY GROUP NINETYONE GROUP NINETYTWO GROUP NINETYTHREE GROUP NINETYFOUR GROUP NINETYFIVE GROUP NINETYSIX GROUP NINETYSEVEN GROUP NINETYEIGHT GROUP NINETYNINE GROUP HUNDRED GROUP HUNDREDONE GROUP HUNDRETTWO GROUP HUNDRETHREE GROUP HUNDRETFOUR GROUP HUNDRETFIVE GROUP HUNDRETSIX GROUP HUNDRETYSEVEN GROUP HUNDRETYEIGHT GROUP HUNDRETNINE GROUP ONEHUNDRED GROUP ONEHUNDREDONE GROUP ONEHUNDRETTWO GROUP ONEHUNDRETHREE GROUP ONEHUNDRETFOUR GROUP ONEHUNDRETFIVE GROUP ONEHUNDRETSIX GROUP ONEHUNDRETYSEVEN GROUP ONEHUNDRETYEIGHT GROUP ONEHUNDRETNINE GROUP TWOHUNDRED GROUP TWOHUNDREDONE GROUP TWOHUNDRETTWO GROUP TWOHUNDRETHREE GROUP TWOHUNDRETFOUR GROUP TWOHUNDRETFIVE GROUP TWOHUNDRETSIX GROUP TWOHUNDRETYSEVEN GROUP TWOHUNDRETYEIGHT GROUP TWOHUNDRETNINE GROUP THREEHUNDRED GROUP THREEHUNDREDONE GROUP THREEHUNDRETTWO GROUP THREEHUNDRETHREE GROUP THREEHUNDRETFOUR GROUP THREEHUNDRETFIVE GROUP THREEHUNDRETSIX GROUP THREEHUNDRETYSEVEN GROUP THREEHUNDRETYEIGHT GROUP THREEHUNDRETNINE GROUP FOURHUNDRED GROUP FOURHUNDREDONE GROUP FOURHUNDRETTWO GROUP FOURHUNDRETHREE GROUP FOURHUNDRETFOUR GROUP FOURHUNDRETFIVE GROUP FOURHUNDRETSIX GROUP FOURHUNDRETYSEVEN GROUP FOURHUNDRETYEIGHT GROUP FOURHUNDRETNINE GROUP FIVEHUNDRED GROUP FIVEHUNDREDONE GROUP FIVEHUNDRETTWO GROUP FIVEHUNDRETHREE GROUP FIVEHUNDRETFOUR GROUP FIVEHUNDRETFIVE GROUP FIVEHUNDRETSIX GROUP FIVEHUNDRETYSEVEN GROUP FIVEHUNDRETYEIGHT GROUP FIVEHUNDRETNINE GROUP SIXHUNDRED GROUP SIXHUNDREDONE GROUP SIXHUNDRETTWO GROUP SIXHUNDRETHREE GROUP SIXHUNDRETFOUR GROUP SIXHUNDRETFIVE GROUP SIXHUNDRETSIX GROUP SIXHUNDRETYSEVEN GROUP SIXHUNDRETYEIGHT GROUP SIXHUNDRETNINE GROUP SEVENHUNDRED GROUP SEVENHUNDREDONE GROUP SEVENHUNDRETTWO GROUP SEVENHUNDRETHREE GROUP SEVENHUNDRETFOUR GROUP SEVENHUNDRETFIVE GROUP SEVENHUNDRETSIX GROUP SEVENHUNDRETYSEVEN GROUP SEVENHUNDRETYEIGHT GROUP SEVENHUNDRETNINE GROUP EIGHTHUNDRED GROUP EIGHTHUNDREDONE GROUP EIGHTHUNDRETTWO GROUP EIGHTHUNDRETHREE GROUP EIGHTHUNDRETFOUR GROUP EIGHTHUNDRETFIVE GROUP EIGHTHUNDRETSIX GROUP EIGHTHUNDRETYSEVEN GROUP EIGHTHUNDRETYEIGHT GROUP EIGHTHUNDRETNINE GROUP NINEHUNDRED GROUP NINEHUNDREDONE GROUP NINEHUNDRETTWO GROUP NINEHUNDRETHREE GROUP NINEHUNDRETFOUR GROUP NINEHUNDRETFIVE GROUP NINEHUNDRETSIX GROUP NINEHUNDRETYSEVEN GROUP NINEHUNDRETYEIGHT GROUP NINEHUNDRETNINE GROUP TENTHUNDRED GROUP TENTHUNDREDONE GROUP TENTHUNDRETTWO GROUP TENTHUNDRETHREE GROUP TENTHUNDRETFOUR GROUP TENTHUNDRETFIVE GROUP TENTHUNDRETSIX GROUP TENTHUNDRETYSEVEN GROUP TENTHUNDRETYEIGHT GROUP TENTHUNDRETNINE						

MEDOVAR, B. I.

25751. MEDOVAR, B. I. Osobennosti avtomaticheskoy cvarki dvukhsloyinoy stali. Trudy po avtomat. Svarke pod flyasom (In-t elektrosuarki im. Patona), sb. 6, 1949, s. 63-80. Bibliogr: 20 Nazu.

SO: Letopis' Zhurnal' nykh Statey, Vol. 34, Moskva, 1949

20.

M. A.

On the Question of the Mechanism of Crystallization of Metal Seams in Fusion Welding. A. A. Alov, B. I. Medovar and A. M. Makara (Avtog. Delo, 1949, (9), 1-3; 1950, (1), 25-27).---(In Russian). According to A., crystallization of welded seams proceeds in a characteristic manner, and because of this, the structure of welded seams is different from that of cast ingots. As a result of the action of mechanical forces, the metal from the molten pool intermittently forms itself into a series of waves, flowing on to the metal which has already solidified into the preceding waves. The undulatory formation and the crystallization of the metal appear as a lamellar structure on the surface of the seams, and also, within the metal of the seam; these latter undulations appear as lines on the section after special etching. Both the technique of the welding process and the properties of the coated electrodes and the fluxes considerably affect the frequency of the waves and their character. M. and M. disagree with this view. They claim to have established that the action of mechanical forces, together with other specific features of the welding process, only contributes to the clearer manifestation of the laminated structure in welded seams. The periodicity of crystallization of steel appears to be the general rule, and does not depend on the conditions of formation and the hardness of the solidified melt. Only the form and dimensions of the layers of crystallization depend on these factors.--W.J.K.

MEBOVAR, B. I.

29051-Vliyanie Mikrostruktury, Raspolozhennoy Pod Nadrezom, Na Udarnuyu
Vyaskost' Ispytannogo Secheniya, Zavodskaya Laboratoriya, 1949
No. 9, S. 1102-03-Sibliogr: 5 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

MEDOVAR, B. I.

USSR/Engineering - Welding, Automatic
Metallurgy

Nov 49

PA 153165
"On Some Metallurgical Peculiarities of Automatic
Welding at High Speeds," B. I. Medovar, Cand Tech
Sci, Inst of Elec Welding Inent Acad Ye. O. Paton,
Acad Sci Ukrainian SSR, 5 pp

"Avtogen Delo" No 11

Discusses "reaction zone" in welding under flux,
and characteristics of high-speed welding. Presents
experimental data and tables on interaction of
metal and flux-slag (effect of length of arc on
reduction of silicon and magnesium, effect of degree
of oxidation of flux on chemical composition of
153165

USSR/Engineering - Welding, Automatic
(Contd)

Nov 49

seam metal, for normal welding rate and at high-
speed, and effect of proportion of electrode metal
in finished seams). Seams welded at high speeds under
proper conditions possessed adequate strength and
high plasticity.

153165

1ST AND 2ND COPIES										3RD AND 4TH COPIES									
PROCESSING AND PROPERTY INDEX																			
22B-372. Determination of Microstructure of Stainless-Steel Weld Beams on the Basis of Microhardness. (In Russian.) B. I. Medovar and A. E. Anis. Zavodskaya Laboratoriya (Factory Laboratory), v. 15, May 1949, p. 570-571. It was found that the presence of carbides increases the tendency of the weld metal toward intercrystalline corrosion and sharply decreases its plasticity. Chromium carbides may be differentiated from the ferrite component by microhardness determination. Therefore, this technique is recommended for more complete characterization of the quality of the weld.																			
METALLURGICAL LITERATURE CLASSIFICATION										RESEARCH NUMBER									
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.										21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40.									

13

NOTCHED-BAR IMPACT STRENGTH OF SPECIMENS AS AFFECTED BY MICROSTRUCTURE BELOW THE NOTCH. A. E. ASHLIS and B. I. MEDOVY, Henry Brucher, Translation No. 2413, 5 pages. From *Zavodskaya Laboratoriya* (Factory Laboratory), v. 15, Sept. 1948, p. 1102-1103.

The above was investigated with respect to weldability of clad steel consisting of low-carbon steel clad with a thin layer of Cr-Ni stainless steel. It was found that the structure below the notch has a decisive influence on impact strength of the section.

ASME-SEA METALLURGICAL LITERATURE CLASSIFICATION

MEDOVAR, B. I. and EVGENII OSKAROVICH PATON

Uspekhi v razvitii avtomaticheskoi svarki pod fliusom za poslednie 2-3 goda. (Vestn. Mash., 1950, no. 2, p. 28-36; no 3, p. 31-42.

Progress in the development of automatic flux welding method during the last 2-3 years.

DLC: TN4, V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

USSR/Metals - Welding

Aug 50

"Quality of Joints Made by Automatic Welding Under Winter Conditions," B. I. Medovar, A. Ye. Asnis, Candidates in Tech Sci, Inst of Elec Welding Imeni Acad Ye. O. Paton, Acad Sci Ukrainian SSR

"Argon Delo" No 8, pp 1-8

Describes experiments to determine effect of low temperatures on quality of low-carbon steel joints welded by automatic method. Concludes: automatic welding under flux of majority of structures made of low-carbon steel 20-25 mm thick can be done satisfactorily at temperatures below freezing. Minimum

167167

USSR/Metals - Welding (Contd)

Aug 50

safe temperature must be established on basis of design and experimental data.

167167

MEDOVAR, B. I.

MEDOVAR, B., I.,

Pa. 173T78

USSR/Metals - Welding

Nov 50

"Double-Arc Automatic Welding at High Speeds,"
B. I. Medovar, Cand Tech Sci, Inst Elec Welding
Imeni Acad Ye. O. Paton, Acad Sci Ukrainian SSR

"Avtogen Delo" No 11, pp 20-23

Advantages of method are div of total required
power between 2 arcs, decrease of welding cur-
rent in each arc, etc. Describes procedure and
equipment.

173T78

100-K. High-Speed Double-Arc Automatic Welding. (In Russian.) H. I. Medvedev, *Avtogennoe Delo* (Welding), v. 21, Nov. 1950, p. 20-23.

Apparatus and procedure. Fundamental advantages of double-arc welding, in which one electrode is held perpendicular to the weld and the other is inclined to it, include division of total power required for high-speed welding between two arcs, decrease of welding current required for each arc, use of electrode wire of not over 6-mm. diameter, and possibility of using ordinary vitreous fluxes. 10 ref. (K1)

444-K. Progress in Development of Automatic Welding Under Flux During the Last Two to Three Years. (In Russian.) E. O. Paton and B. I. Medvedev. *Vestnik Mashinostroeniya* (Bulletin of the Machine Construction Industry), v. 30, Feb. 1950, p. 28-36; Mar. 1950, p. 31-42.

Russian research as applied to carbon and low-alloy structural steels. Methods of stress relief, applicable mechanical tests and low-temperature applications (down to -45°C). Second part: New equipment, tables, diagrams, and illustrations. (K1. ST)

MEDOVAR, B. I.

RYBASENKO, I.D.; YAKUBOVSKIY, L.A.; KAGAN, I.Z.; MEVSKIY, B.N., inzhener,
redaktor; MEDOVAR, B.I., kandidat tekhnicheskikh nauk, retsenezent;
BORT, M.M., inzhener, retsenezent; PRITSKER, G.S., tekhredaktor.

[Technology of making chemical apparatus of stainless steel] Tekhnolo-
giia izgotovleniia khimicheskoi apparatury iz nerzhaveliushchei stali.
Kiev, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1951, 145 p.
[Microfilm] (MIRA 10:5)

(Chemical apparatus) (Steel, Stainless)

MEDOVAR, B. I.

USSR/Engineering - Welding, Methods 1951

"Measures for Elimination of Pores Caused by Automatic Welding of Stainless and Heat-Resistant Steels," B. I. Medovar, Cand Tech Sci

"Avtomat Svarka" No 1 (16), p 69

Discusses types of fluxes used for automatic welding of steels of austenitic type and suggests application of dc of reverse polarity in cases when alternating current produces porosity in welds.

202153

MEDOVAR, B.I., LANGER, N.A.

Steel Alloys

Method of testing intercrystalline corrosion of welded joints of acid resistant steel.
Avtom.svar., 4, No. 5, (20), 1951.

9. Monthly List of Russian Accessions, Library of Congress, June 19~~51~~⁵², Uncl.

MEDOVAR, B.I.

DSSB/Metals - Steel, Welding

Jul 51

"Corrosion Resistance of Welded Joints of Chrome-Nickel Stainless Steel in Boiling Nitric Acid,"
B. I. Medovar, Cand Tech Sci, N. A. Langer, Sci Worker

"Avtomat Svarka" No 4 (19), pp 73-81

Investigates possibility of using Cr, Al, Si, Ti, V and W as addns for prevention of intercryst corrosion of welds instead of Cb which causes hot cracks in welds of 18-8 steel. All addns promote formation of ferrite in welds. Presence of 2-phase austenitic-ferritic structure results in chem endurance equal or even higher than that of welds with pure austenitic structure.

219T53

MEDOVAR, B.I.

Remarks on N.N.Prokhorov's book: "Hot cracks in welding." B.I.Medovar.
Avtom.svar.6 no.3:65-72 My-Je '53. (MLRA 7:5)
(Prokhorov, N.N.) (Welding)

MEDOVAR, B.I.

Effect of hydrogen, oxygen and nitrogen on the formation of hot cracks in welded type 18-8 steel seams. Avtom.svar. 6 no.4:3-23
Jl-Ag '53. (MLRA 7:11)

1. Institut elektrosvariki im. Ye.O.Patona Akademii nauk USSR.
(Steel--Welding)

MEDOVAR, B.I.; KUDELYA, Ye.S.; DEM'YANCHUK, A.S.

On a peculiarity of producing two-layer steel with an anti-corrosive coating. Avtom.svar.6 no.6:20-26 R-D '53. (MIRA 8:4)

1. Institut elektrosvarki im. Ye.O.Patona Akademii nauk URSS.
(Steel--Welding)

MEDOVAR, B.I., kandidat tekhnicheskikh nauk; SOROKA, M.S., redaktor;
RODINSKIY, Ya.V., tekhnicheskiiy redaktor

[Welding of chrome-nickel austenite steel] Svarka khromonikelevykh
austenitnykh statei. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit.
lit-ry, Ukrainskoe otd-nie, 1954. 151 p. 25 plates. (MIRA 8:7)
(Chromium-nickel steel--Welding) (Austenite)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033220004-6

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033220004-6"

MEDGOVAR, B.I.

The σ -phase of welds of chrome nickel austenitic steels of type 18-8. B. I. Medgovar and A. A. Rossoshinski. *Atmosphere*, No. 8 (Whole No. 88), 28-40 (1964). As a result of extended heating in the interval 675-875°, the austenitic-ferrite welds in type 18-8 steels may acquire a marked brittleness owing to a transformation of the σ -phase into the σ -phase. The speed and degree of the transformation depends upon the quantity of initial ferrite, the type of alloy in the weld, the refinement of its structure, and the presence of stretcher strains. The presence of Cr, Ti, Nb, V, Mo, and Si favors the transformation of α to σ . Heating for 2 hours in the interval 760-850° may cause as sharp a decrease in the impact strength as several hundred hours at 650°. It is stated that formation of the σ -phase may be retarded by preliminary heating in the range 1100-60°.

J. R. Behrman

MEDOVAR, B. I.

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Author : Medovar, B. I.

Title : Nature of cracks in hot welded seams

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Abstract : The significance of composition, property and amount of eutectics on prevention of formation of cracks during welding is discussed with reference to the author's experiments and works of other Soviet and foreign investigators. The formation of the cracks is analyzed from the metallurgical and mechanical points of view and illustrated with 13 microphotographs and 2 phase-diagrams. 18 Russian references of 23 (1947-1954).

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AUTHOR: Medovar, B. I.

TITLE: Technological and Metallurgical Aspects of Submerged-arc Welding
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Moscow, AN SSSR, 1955, pp 159-169

ABSTRACT: Peculiarities of the crystallization of metal deposited in one pass during vertical electroslag welding of sections up to 200 mm thick [absence of a sag zone in the vicinity of the axis of symmetry of a butt weld (W), better degasification of the metal] are examined together with the advantages offered by automatic submerged-arc welding employing a thin welding wire (conditions of heat propagation, activation of a reaction between the molten metal and the slag; better degasification of liquid metal owing to the small depth of the bath); the following topics are also examined: merits of multi-arc welding with either separated or closely spaced electrodes, fields of application of automatic surfacing of components with the aid of

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Technological and Metallurgical Aspects of Submerged-arc Welding

tubular electrodes, achievements in the field of welding of low-alloy steels, and the peculiarities of automatic welding of stainless steel of the 18-8 type (hot cracking of W metal as well as of the metal near it; tendency toward intercrystalline corrosion in welded joints). As a means of preventing intercrystalline corrosion, it is recommended that the parent metal be alloyed with Ti and the metal of the W with Nb. Hot cracking is avoided by producing W's with a two-phase structure which is subsequently refined. Ferritizing elements include Al, Si, Ti, V, Cr, W, Mo, and Nb. With the exception of Nb, all of these elements increase the resistance of the W's to hot cracking. The effect of Nb is neutralized by complex alloying of the W with other ferritizing elements. The crystallization pattern of W's having a two-phase structure is described and the effect of the degree of acidity on the transcrystallization of the W's is analyzed. New electrode wires for welding of stainless steel are recommended.

V. S.

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